ARGUMENTS

The Office Action mailed April 23, 2007 has been carefully considered. Within the Office Action Claims 2, 4-7, 10, 22-25, 27 and 28 have been rejected. Applicants have amended Claims 2, 22, and 28. Reconsideration in view of the following remarks is respectfully requested. A two-month extension fee is included herein.

The First 35 U.S.C. § 103 Rejection

Claims 2, 4, 10, 22, 24, 27 and 28 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Chang et al.[1](referred to Chang '351), in view of Thorner et al.[2], and further in view of Chang et al.[3] (referred to as Chang '948) among which claims 2, 22 and 28 are independent claims. This rejection is respectfully traversed. Applicants would also like to point out that Chang '948 is referred to in the office action in rejecting the claims, but is not believed specifically discussed.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.

See M.P.E.P. 2141. In addition, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. See M.P.E.P.

[1] U.S. Patent No. 6,285,351

2141.02; See also *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

Applicants' specification discusses that a disadvantage of existing systems based on direct sound waveforms is that the haptic sensation are simple effects based directly on the sound signals. According to the specification, these existing systems don't evaluate or process the sounds signals before sending the signals to the haptic device. Applicant's system is able to overcome these disadvantages by receiving sound data from which haptic effects are eventually applied; analyzing the frequency ranges of some or all of the sound data to identify sound features from which one or more haptic effects may be applied; and outputting one or more haptic effects based on the identified sound features.

Chang '351 discuss a computer system which allows a developer to develop and design haptic effects which are to be output by a force feedback interface device. In particular, Chang '351 describes details of the system and how it primarily allows the user to design force effects from scratch. Therefore, one skilled in the art reading Chang '351 in its entirety would realize that overall purpose of Chang '351 is a haptic effect design tool instead of a system that outputs haptic effects based on sound signals.

One skilled in the art would have no motivation to combine Chang '351 with Thorner in reaching the claimed embodiments. Chang '351 states that designers may have a difficult time synchronizing force sensations with sounds that the designer wishes to have played in conjunction with the force sensation. For example, a particular force sensation such as a collision is often accompanied by an appropriate sound to present the experience more effectively to an end user. To overcome this problem, Chang '351 describes a feature which allows a sound

[2] U.S. Patent No. 6,422,941

to be applied to the already designed force effect. As an example, Chang '351 describes that the user can attach a sound file (e.g. .wav) to the designed force effect and play the force effect along with the sound to determine whether the sound and force effect would provide the end user with the desirable haptic experience. Chang '351 goes on to state that the force sensation can be fine tuned to ensure that it is synchronized with the sound. Chang '351 describes an example in which the user synchronizing a vibration with a pulsing sound effect can alter the frequency (or other parameters) of the vibration and test the force and sound together again to determine whether they synchronize with one another. In other words, Chang '351 requires the user to manually test the force with the sound (sometimes in an iterative fashion) to ensure synchronization between the two. However, one skilled in the art reading Chang '351 would not come away with a system which actually analyzes the sound file and produces haptic effects which are automatically synchronized from its analysis. Further, Chang '351 and Thorner teach away from one another considering that Thorner expressly states that its system operates without the direct support of the developer. (Thorner, Col. 2, Lines 59-61) (emphasis added). Considering that the references teach away from one another, one skilled in the art would have absolutely no motivation to combine Chang '351 with Thorner in reaching the Applicants' claimed embodiments. See *W.L. Gore & Associates.*

Assuming *arguendo* that one skilled in the art were to combine Chang '351 with Thorner, the combination would not teach or suggest all the claim limitations in Claims 2, 22 and 28. Neither Chang '351 nor Thorner teach or suggest the analyzing of each frequency range is performed by a processor to determine one or more sound features corresponding to at least one of the frequency ranges, as recited in Claims 2, 22, and 28. Additionally, neither Chang '351 nor Thorner describe that the executed haptic effect is based on the determined one or more sound

[3] U.S. Patent No. 7,091,948

features, as recited in Claims 2, 22, and 28. Further, neither Chang '351 nor Thorner describe that at least a portion of the sound data is stored wherein the sound data is to be analyzed by the computer to output a haptic effect therefrom, as recited in Claims 2, 22, and 28. For at least these reasons, a *prima facie* case of obviousness has not been established, and Claims 2, 22 and 28 are allowable over the cited prior art.

As to dependent claims 4, 10, 24 and 27, the argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable.

The Second 35 U.S.C. § 103 Rejection

Claims 6, 7 and 25 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Chang et al., in view of Thorner et al., and further in view of Fineberg[4]. This rejection is respectfully traversed. As to dependent claims 6, 7, and 25, the argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable.

[4] U.S. Patent No. 5,842,163

Conclusion

It is believed that this reply places the above-identified patent application into condition for allowance. Early favorable consideration of this reply is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698. A two month extension is included with this reply.

Respectfully submitted,

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Dated: 9/21/07

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